Myriophyllum spicatum L. along shores of Gulf of Mexico

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In 1977 the author published an extensive account of the history and distribution of Eurasian watermilfoil, Myriophyllum spicatum L., in the United States and Canada. During the summer and autumn of 1979 an extentive survey was made of the ports and shore lines along the Gulf of Mexico from Panama City, Florida to New Orleans, south to Brownsville, Texas by the author. A few new localities for this watermilfoil were observed at that time.

A brief discussion of the history and presence of Eurasian water-milfoil in North America might be of interest here. Myriophyllum spicatum L. was described by Linnaeus in 1753 from quiet waters from Europe. As early as 1848 Asa Gray listed it from Northern United States; Tatnall in 1860 suggested M. spicatum probably could be found in New Castle County, Delaware, without any definite cited record. Again, Gray in 1867, 1880 and 1887, in various editions of Gray's Manual, listed M. spicatum for northeastern United States, this last time stating it as the first to cite definite specimens from the Potomac River, near Alexandria and Hunting Creek. Hitchcock in 1919 noted the Virginia specimens in the Potomac River (although the river to the Virginia shore belongs to Maryland) and aided 'widely distributed in North America, Europe and Asia'.

Looking mainly at northeastern material, Fernald in 1919 clearly indicated that American plants differed in several aspects from the Eurasian specimens, and named the American material M. exaltescens Fern., without indicating that some of the material could be typical M. spicatum L. Hulten in 1947 regarded M. exaltescens as a subspecies, namely M. spicatum subsp. exaltescens (Fern.) Hulten. Gleason in 1952 notes 'perhaps better subordinated to the Eurasian M. spicatum as var. exaltescens (Fern.) Jeps.

Reed in 1970 was the first to treat both species as being in North America. Since the explosion growth of $\underline{\text{M}}$. $\underline{\text{spicatum}}$ L. in the Chesapeake Bay, the Potomac River and TVA in the 1950's and 1960's, a great number of specimens have been collected and studied. Reasons for this explosive growth during the late 1950's was discussed in the 1977 paper, and as early as 1962, Reed had stated in the Summary of the 1962 Interagency Research Meeting on Eurasian Watermilfoil that due to the hurricanes and the vast amounts of runoff water from limestone areas, pi, ion-concentrations and other nutrient balances had been upset in the Potomac, Susquehanna (which emptied into the head of Chesapeake Bay) and TVA areas.

Since the mid 1960's the population of <u>M. spicatum</u> L. was wayned, but so have the frequency of hurricanes in the areas and the amounts of runoff water coming into Chesapeake Bay. However, every year I have been able to find some plants of <u>M. spicatum</u> in the Chesapeake Bay or along the shores of the lower Potomac River.

However, M. spicatum was on its way south. By 1962 Dexter Haven had found it in nearly every tributary of the Virginia shore of the Potomac River; by 1970 it was well established in marshes and ditches near Back Bay, Princess Anne County (Virginia Beach), Virginia, just back from the Atlantic Ocean; John Steenis reported it in 1962 from Pea Island Refuge on the Outer Banks of North Carolina and Reed found it to be abundant at Currituck, North Carolina in 1968. By 1979 it had become a noxious weed in the waterways of the Albemarle Sound and Palmico Sound regions of eastern North Carolina.

In 1970 Reed recorded on maps spotty localities for M. spicatum in western Florida (in the Tampa-Sarasota region and from Panama City westward along the Gulf Coast), southwestern Georgia, Louisiana and Texas (Houston area). During my search for noxious weeds in 1979, I found several more localities along the shores of the Gulf of Mexico, this time in Mississippi and Louisiana; annotations for these specimens are given below and specimens are deposited in the Reed Herbarium, unless otherwise noted.

As more botanists are studying the watermilfoils, more specimens of the Eurasian Watermilfoil have been coming to light, and Hitchcock's statement that $\underline{\mathbf{M}}$. $\underline{\mathbf{spicatum}}$ is widely distributed in North America might be quite true.

Annotated specimens:

Mississippi: Shore of Gulf of Mexico at Bay St. Louis, near Puates Cove, Harrison Co. June 21, 1979. Reed 104578.

Louisiana: Shore of Gulf of Mexico, Rt. 90 at Fort. Pike State Monument, New Crleans Parish. Oct. 24, 1979. Reed 103844.

Pointe Coupe Parish, False River near New Roads. July 1966. <u>John W. Thieret</u>. (Fish & Wildlife, Laurel, Md.).

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